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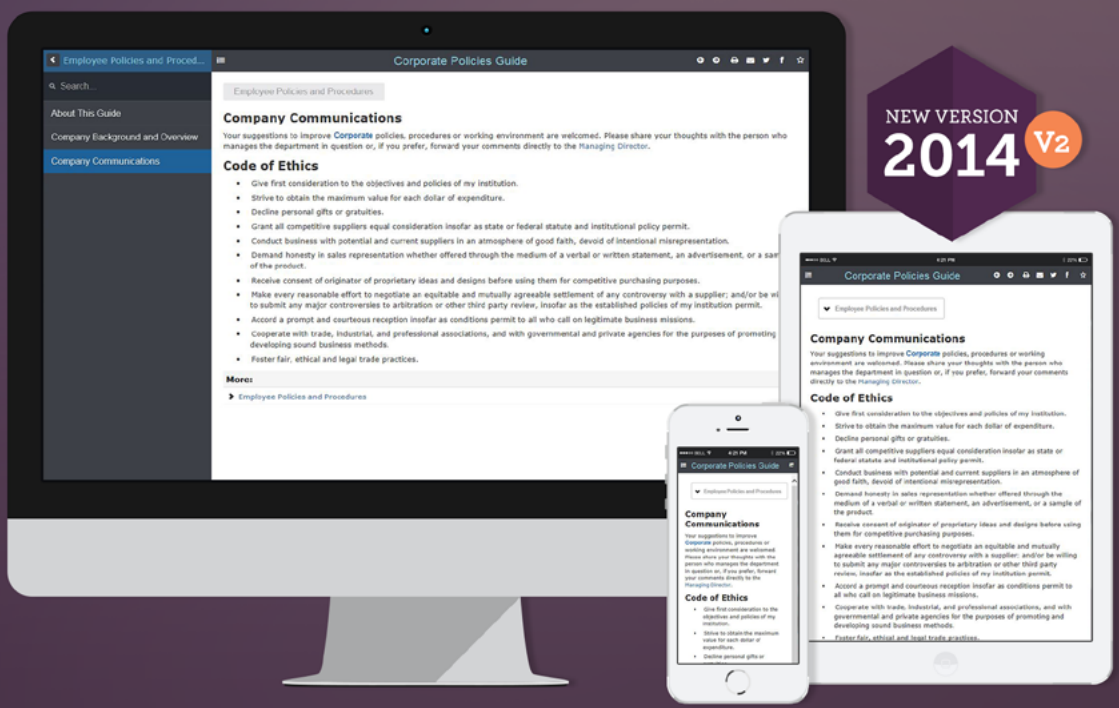

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A Note from the Editor

READERS OF THIS MONTH'S ISSUE of *Intercom* may find the articles seem like deliberate point/counter-points in that they provide fascinating juxtapositions of opinions and theories about the technical communication profession, and especially about how technical communicators should develop content. Although mostly coincidental, there is a running theme among them—that the technical communicator is still essential to the content-production process.

In "Writer's Block: How to Write Content That Delights, and Why We So Often Don't," Barry Grenon explains why technical writers sometimes make the worst writers. His article is intentionally provocative, intending to force technical writers into thinking about content in new ways, and especially in applying a less strict approach to writing technical content. He recommends adopting some techniques of developers and software engineers, including writing content that delights and that is—above all else—human.

Bradford Connatser seems to take the opposite approach by diving deep into writing with his discussion of noun strings and their multiple offenses. He provides "stringers" with guidance for understanding and preventing them. But he also reinforces Grenon's point by stating that technical communication "would benefit from a more conversational approach to conveying technical content."

Kirk St.Amant and Lisa Meloncon take us in another direction by focusing on a new framework for rethinking information design. In describing the attention-comprehension gap, they define a theory that highlights the need for technical communicators to reexamine the relationship between drawing attention and ensuring comprehension in design. They argue not just for delightful content, but also for reader understanding and ways technical communicators can balance attention with comprehension.

In two articles about translation, Matt Mermel and Nataly Kelly each explore accurate, effective, and low-cost solutions. By using a Six Sigma approach—a set of techniques for process improvement—Mermel explains that translation can produce more accurate and effective work. The stages he defines in the article are define, control, measure, analyze, and improve. Kelly, on the other hand, recommends a blend of manual (aka human) and tool-based solutions to translation. She provides several ways to improve manual processes with tools and automation to accomplish three goals of most translation projects—speed, quality, and cost.

This issue also highlights two columns by students in the field—Robin Gosser on ethics and Jason Tham on Google Glass. They provide a perspective of technical communication as seen from the student's point of view.

I hope you enjoy reading these articles as much as I did. And I hope they provide fodder for debate and discussion on *http://intercom.stc.org*.

—Liz Pohland
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Writer's Block: How to Write Content That Delights, and Why We So often Don't

By BARRY GRENON

AT A COMPANY I used to work for, my boss once told me about a conversation he had with the company's CEO. My boss had been looking to get more money for our department so we could get our docs online, when the CEO looked out into space, disengaging from the conversation. "You know, when people look at our documentation," the CEO said to him, "I think they often feel just a little bit … sad."

I've heard a few potshots taken at "the docs" over the years. "Nobody reads the docs," for example, is probably the most common, although Web analytics show that this is false. Documentation is an easy target, and a lot of the criticism it attracts is unfair. Or fair, but misdirected. For example, I have often thought that you could probably "read" a company's internal dysfunction by looking at how the docs are put together; the docs are a map telling you which departments are talking to each other, which aren't, and so forth. Inelegant, over-complicated software under the hood shows itself in the help file and knowledge base, and complaints about "the docs" are often complaints about the product itself, shooting the messenger, as it were. Most of these criticisms are taken in stride, but it was what this CEO said—that the documentation makes people feel *sad*—that stuck.

I think I know what that CEO meant: the sadness of looking over thousands of pages of content, and *knowing* that something is not quite right. That there is too much detail where there doesn't need to be. That things do not cohere where they should. That this mediocre output represents hundreds of thousands of human hours squandered on content that, to a large degree, is merely "better than nothing." Content that does not *delight*.

Technical writers may be naturally suspicious of the idea that documentation should delight. And for some industries—nuclear power, for example, or airplane assembly—the idea makes no sense at all. But I maintain that a well-made thing, when it does what it needs to do very well, becomes an aesthetic experience, and hence delightful. I would also wager that aesthetics and cognition are more closely coupled than we suspect. A better-*looking* airplane assembly manual, with sharp photographs, clean page layout, and an elegant use of white space, might actually prove easier to consume, and possibly—maybe even measurably—safer for that industry. We are *human beings* who use technology, after all, and when we put out content that sounds like it was written *by* a robot *for* a robot, we are not helping human beings understand things. Which is the job, isn't it?

The software industry is a little different, I think. For any industry with technical content that touches customers—enterprise customers, business users, random Web consumers, whomever—where the documentation is understood to be a customer touch point, it feels like there is definitely a new expectation being put on writing groups—namely to make better, more human content. My sense is that the folks putting this pressure on technical writers don't know exactly what they want. They want us to make content more visually compelling, the writing style more personable, and everything simpler, cleaner, and just *better*. In response to these demands, I maintain that most of us writing folks don't know what to do. All of our conferences, keynote addresses aside, talk mainly about the mechanics of running of the show: how to manage content more efficiently, how to reduce costs to do more

with less, how to make our writing lives easier in terms of handling the complexity of localized content, re-usable content, or writing for a global audience. These are all of the straightjackets that make us think and write like robots. But mostly, it's about reducing costs, or as I've heard it put, *remaining invisible*. Reducing costs, however, is *not* a job, and remaining invisible will not help us keep our jobs. We need to talk less about managing content—that necessary, albeit complicated evil—and talk more about the content itself. Or what we really need to be talking about is sex.

We need to talk less about managing content—that necessary, albeit complicated evil—and talk more about the content itself.

Documentation Is Like Sex

An engineer I work with called over to me in the lunchroom one day. "Barry, I got one for you," he says. "Documentation is like sex: when it's good, it's great. But when it's bad? It's better than nothing."

To me, the element of surprise in this joke was the idea that he thought that documentation actually *could* be great. In my own travels online and otherwise, it has been my job to figure out how to make my latest company's content better, and I have seen some great content. A lot of it is developer content, such as API docs, written by developers for developers. But then there's the Web.

I sometimes think that the Web has become a third technical documentation. Between forums for every hobby under the sun and how-to videos on YouTube, we are all technical writers now. And it often seems that some of the amateur stuff is more helpful than the professional docs. Amateurs seem to default to simplicity and screenshots. Technical writers seem to default to complexity, an overwhelming and sometimes unnecessary completeness, and they usually include no screenshots due to internal (and numerous) maintenance considerations.

I'm intentionally being provocative. There is plenty of good, interesting documentation out there, and companies that get it. In my opinion, though, I think the best technical content is being written by developers—software engineers with a good command of the language and good personalities. I think there are three reasons for this:

1. Software engineers design their own platforms. Unconstrained by a towering edifice of content, they make nice UIs for their stuff. They know how, and they just do it. It's better. Death to tri-pane help!
2. Developers write like human beings. They say things like, "Now be careful with this next part, it gets really tricky." I consider this a helpful phrase—it lets you know that you have to pay attention, and it mentally grounds you to do something. I have never seen a technical writer phrase a sentence in this way. Instead, technical writers default to a formal style that seems to be written by a machine (and one day, if we keep it up, it might be). There is a style choice in this, an effort, I sometimes fear, to appear smart and technical. As soon as one starts thinking about writing professional content, instead of just helping another human being accomplish something, the style seems to stiffen. There may be a bit of reach involved—writers trying to show that they have the technical chops for the job by writing intelligently, but perhaps too complexly, about the tasks at hand. Developers, on the other hand, who live and breathe technical and do not suffer from any insecurity on that account, are fine with making things sound breezy and simple (maybe they just don't think about it too hard). Considerations, such as grammar, absolute accuracy, comprehensiveness, localization, second-language user considerations, plus a host of other "professional" concerns are less important. Is it a sustainable model? Probably not. For every good example of a developer-written API, there are probably 10 atrocities that never made the listsicle. But it can't hurt to look at what our technical users point to as good content and learn from those naïve models.
3. Developers, for the most part, don't have to manage content. They don't worry about translation costs. They don't worry about single sourcing to multiple outputs. They don't struggle with partitioning content into discrete chunks that can be repurposed across a complex product suite. They don't have a million tasks in the background, the kind that unskilled technical writers take refuge in, hoping that "reducing costs" will keep them employed for the length of a career. Believe me, I understand the background sludge that prevents good writing teams from producing great work. We are shackled, in many cases, by the limitations of the tools and the trade-offs we face between making content that delights our users, and making content that we can actually maintain.

We Get the Tools We Ask For

The technical writer is not to blame. It's not our fault the content is so mediocre. It's not even the fault of the vendors that supply our tools. Dealing with all of this content requires—I *suppose*—complex tools. Look at the job boards. Tool requirements for technical writing jobs are both long-winded and terrifying. Tool proficiency often takes an inappropriate priority in the hiring process, making it difficult to hire, for example, the legions of journalists fleeing that collapsing field, who have a lot of value to add to ours. Tool complexity makes it hard to curate content drafted by other people—eager non-writers who have so much knowledge to add to the corpus, but who can't or won't use our platforms. Tool complexity turns technical

writing departments into bottlenecks, with whole countries of excellent information languishing on Outlook Exchange servers and cheat sheet *.txt* files scattered throughout a company. And the tools do not focus—since we, collectively, also do not focus—on the customer experience.

Vendor tools do great things. We all know about them. But the great things that they do are centered on solving old problems of managing content and reducing costs, not the new problem of delighting users.

What would delight our users? I have some ideas:

- Increasing the visual component. *Vastly.* I believe that we should invert the relationship between text and image, so that we choose our key images first—the right screenshot, diagram, screencast, or clickthrough tutorial that best explains a task or concept—and choose text to support that visual component second.
- Writing like a human being, to a human being, since human beings are what we are. Plain language principles are a good start.
- Using judgment and finesse when it comes to setting the level of detail. All technical writers, especially writers of GUI-based software, should know that writing step-by-step instructions is not supremely helpful for people who are mentally taxed, and who are already overloaded with information. Worse, if all you are doing is transcribing the relationship between a button on the screen and how it reacts when clicked, there are robots already capable of doing this for you. Use some judgment and finesse to keep the artificial intelligence at bay.
- Refocusing our industry less on the mechanics of maintaining content and more on the look, shape, and feel of what our users interact with, primarily, the Web page. Notice the absence of the words DITA or XML in this article.
- Dropping the ambivalence and writing for the Web. Optimizing for the Web. If you can't optimize your content for the Web because you need to keep it in a special condition so that it can be easily outputted to other formats, then you may have too many formats. If you are sacrificing your Web content for the sake of keeping PDFs available to satisfy the handful of throwbacks that still love them, then you are failing the 80/20 rule. Nobody reads PDFs, even when they say they do.
- Avoiding content re-use. Reducing costs is not a job. Doing the same thing twice is stupid, no argument. But writing in such a way that a given chunk of content works equally well in different contexts can often result in content that *has* no context, becoming inert and useless. You can try adding in variables and conditional text so that the dream of re-using a given piece of content in two or more places at once comes true, but this approach quickly turns to inefficient, complex spaghetti. "Copy, paste, and rewrite" is not always a bad idea. My guess is that for certain industries, and for very specific use cases like 40 slightly different Toyota Camry manuals, these re-use strategies are vital. But for most software documentation, the concept is oversold. You can tie yourself into knots trying to make it work. Who cares? It's not that important.
- Hiring someone on your team who can customize HTML and CSS. You can use any vendor tool out there to decent results, I believe, but most do not pay close attention to that important customer-facing "last mile." Let a skilled Web developer spend a week or two customizing your platform's default CSS output. It is probably the cheapest way to increase user satisfaction in a hurry. I've talked to many tool vendors at conferences the last few years. They don't know why we keep taking their default output and pushing it to the Web, but that seems to be what most groups do. If you don't have the skills on staff, you may have no choice.
- Asking end users what they need. Vendors, don't ask writers and doc managers what we need from your tools, ask end users—the consumers of our documentation—what they need. They are not mythical creatures. They do exist—I've seen scrolling lists of all their IP addresses in Google Analytics. For example, the number one request, in my experience, has been for *more screenshots.* Why is there no feature for automatically updating screenshots when a GUI updates? There are hacks for this online, and if we make this a robust feature, a method for updating screenshots, screencasts, and longer videos automatically by running against the latest product GUI, we may see an explosion of more visual content on our documentation websites. Please, help support our multimedia efforts!
- Making a connection with users the first priority. Vendors, writers, video makers, diagram designers, all of us have to make a last connection with our users, figuring out how to help them understand the things we are asking them to do, in as pleasant a way as possible. That is where we add value. That, after all, is the job.

Making a connection with users the first priority.… figuring out how to help them understand the things we are asking them to do, in as pleasant a way as possible. That is where we add value.

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Understanding, Curing, and Preventing the Noun String: Part 1

By BRADFORD R. CONNATSER | *Senior Member*

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THE MEANING OF THE TERM *NOUN STRING* is self-evident: Nouns are overemployed as adjectives and stacked one atop another with abandon. Ligatures—connectives like prepositions, conjunctions, and articles—are handed their hats during composition. Weak nouns, masquerading as adjectives, are used in place of dynamic verbs. What does a sentence meaning strangulation noun string look like? There it is, the sentence to the left. It is a string of nouns that strangles the meaning of a sentence. Like I tell the engineers with whom I work: If you find yourself stringing three or more nouns together without connective tissue, you are probably committing a noun string. In this article, I call the people who habitually do this *stringers*.

In the course of a writing project, an engineer may generate thousands of ideas about his subject, but the ideas that merit communication must eventually be reduced to sentences. Ideas may sprawl in the mind—nouns swirling like pixie dust—but they must be relentlessly constrained to sentences that meet the readers' expectations. Readers crave action and recognizable linguistic patterns, such as subject-verb-object and preposition-object, but noun strings deny this craving. This article explores the noun string, its disastrous effects on cognition, its causes, and its cures.

How does a noun string cause misreading?

Errors in documents range from the trivial—misspellings, superfluous commas, faulty pronoun agreement—to those that impair cognition. Noun strings are located at the latter end of the spectrum, and although they are not technically violations of grammar, they may pack more destructive punch than most solecisms.

All of the effects of noun strings discussed below can generally be categorized as "confounds and annoys the reader." The reader who encounters a noun string does not arrive at full comprehension in a timely manner, begetting annoyance. Ensuring full comprehension should be a primary concern of the conscientious writer.

Virtuosity in crafting sentences is not the prime goal of technical communication. The goal of scientists and engineers is more modest: clarity. Clarity is essential, but ubiquitous noun strings obscure meanings and annoy our readers, defeating the primary rhetorical purpose of technical communication.

Below are some causes of misreading engendered by noun strings.

Conceals Relationships Between Words

Understanding how nouns relate to other nouns in a sentence is essential to successful interpretation, and yet relationships are the very things that noun strings conceal. The function of each word in a sentence should be manifest, as should be its relationship to other words in the sentence. But in a noun string, a noun floats, detached from the words around it, devoid of the linguistic structures that connect it in meaningful ways, devoid of patterns that the reader craves. For example, take the pattern "subject-verb-object," which is the staple of many sentences. Now, consider the following subject-verb-object sentence:

The investigator described **the employed energy shortfall makeup technology**.

The object of the verb "described" is lost in a "where's Waldo" nounscape, bereft of the kind of connective tissue that makes relationships explicit. I repaired this particularly ineffective sentence in this way:

The investigator described **the technology that the custom power device employs to make up for energy shortfalls**.

I was able to recover two verbs and several connectives. I also installed the essential but omitted answer to the question, "What is making up for the energy shortfall?" "A custom power device," I would discover from the author. Although the author's message is now unequivocal, the word count swelled from 9 to 17 (as you will see later, I am not a big fan of concision for concision's sake). The revision violates the compulsive linguistic thrift that preoccupies scientists and engineers, as well as the misguided notion that fewer words mean "easier to read." Easier to write, perhaps, but certainly not "easier to read."

Violates Reader Predictions

Readers make predictions—about words that they have not encountered yet, about the function of words (such as subject, verb, preposition), and about the meanings of words. Often, noun strings include words that intervene between a subject and its verb, a verb and its object, or a preposition and its object, thwarting the reader's predictions. A typical pattern for an interfering noun string is:

[subject][transitive verb] [interference] [object]

For example, consider the following commingling of nouns that follow a transitive verb:

The project team developed **a surge environment classification scheme**.

The reader wants to know: What did the team develop? But he gets a handful of candidates: *surge? environment? classification? scheme?* Of course, through analysis, one can determine that the answer is "scheme." And what kind of scheme? One that classifies surge environments. However, analyzing is not reading. Reading is swift and automatic. Here, the reader expects [subject][verb][object] but gets [subject][verb][noun that is not an object][noun that is not an object][noun that is not an object][noun that *is* the object]. This intervention—with its resulting suspension of the object—violates the [subject][verb][object] pattern that the reader craves, violates the reader's expectations, and engenders uncertainty.

The same hampering of the reader's predictive success occurs in the following sentence:

Wiring issues can easily affect **mitigation equipment performance.**

Here, the subject is "issues," the verb is "can easily affect," and the object of the verb is "performance." However, the reader may initially interpret "mitigation," "equipment," or "mitigation equipment" as the object. (And why not? It makes sense.) Once the reader misidentifies the object, the reader does not know how to process "performance." The reader has to determine the relationship between these three words outside the reading process, and once he's started trying to figure things out, he has stopped reading.

Strands the Reader

Have you ever been up the garden path? *Dictionary.com* defines a garden path as "noting or pertaining to a sentence that is easily parsed incorrectly because its beginning suggests it has an interpretation that it clearly does not have." Garden paths can be caused by squeezing out ligatures and nominalizing action words during the construction of noun strings. They leave the reader stranded, engendering a bitterness toward the author for wasting his time or, worse, making him feel inadequate.

Prevents Phrase Collapsing

The concept of a limited working memory has become an imperative for professional communicators to prevent the cognitive overload of the reader. If a phrase is too long, the reader will fail to process it properly in short-term memory. The elements of the phrase will not collapse—or coalesce—into meaning. When a noun string fills the reader's head, he cannot render the gestalt of the sentence. The reader will collapse before the phrase does.

Conceals the True Number of a Noun

When people use a noun as an adjective, they typically use the singular form, even though the notion of the noun as it is used in the sentence may be plural. I call this "false singularizing." For example, "electronic system malfunctions" conceals the true number of "system." In this case, malfunctions can happen to all kinds of electronic systems, so unstringing this noun string would liberate the "s": malfunctions of electronic systems.

Complicates Interpretation

Parsimonious writers often overuse implication, assuming that omitted words can be conjured by the reader to consummate the interpretation of a sentence. However, in technical communication, explicit is the way to go. Leave almost nothing to chance (there are some perfectly legitimate elliptical constructions, which omit words that the reader can effortlessly pick up from the context). Noun strings omit the ligatures that often serve as lynchpins of interpretation, little words such as "of," "in," and "for." Connectives, mostly prepositions, are very important for fluid reading, explicitly informing the reader about how words are related to each other. Without them, readers must infer those relationships, and inference may be difficult or result in faulty sense-making. Exposing a sentence to different interpretations is counterproductive in expository writing, although constructive ambiguities may enrich fiction and other art genres.

What Causes Noun Strings?

Now that we understand how noun strings can cause uncertainty, I turn to a conspicuous question: What causes noun strings in the first place? What follows is conjecture, but it is based on two decades of observation, both in the classroom—where I taught writing to would-be engineers, among other majors—and in the world of graduated engineers. One observation trumps all others: When an engineer puts pen to paper, he does not *intend* to fabricate

a linguistic structure that frustrates the reader, or that jams the reading machinery. But jamming does regularly occur. Here are a few possible causes of noun strings.

The Noun String Is a Meme

The noun string is a meme lurking in the halls of academia and spreading to the prose of the pragmatic world. According to Merriam-Webster online, a meme is "an idea, behavior, style, or usage that spreads from person to person within a culture." Lethal to the reading process, indiscriminately killing sentences, and crushing interpretation, this meme is an epidemic in the engineering community, incubating in the schools of science.

The meme concept moves me beyond blame and into a more productive way of thinking about noun strings. The noun string in the halls of engineering schools is a meme in the form of an ingrained rule of linguistic thrift (discussed below), and engineers seem to be carriers of this meme. The efficacy of the noun string is never challenged (nor are noun strings even recognized), and therefore the meme has tremendous inertia in academia, which propels it into the pragmatic worlds of science and engineering. Like a murmuration of starlings, there is no leader of the meme, and everyone follows him.

Linguistic Thrift

Stringers overvalue concision. In fact, I think that concision in general is a spurious criterion of good technical communication. Density is prized in many domains. When we shop for fruits, vegetables, and other foods, we like a high weight-per-cost ratio. Everyone wants a deal—everyone but the reader. The benefits of density do not reasonably extend to language. It is true that the reader can perceive when a text is bloated, but the reader does not appreciate the linguistic thrift conferred by the noun string. Science and technical communication in general would benefit from a more conversational approach to conveying technical content, but noun strings are decidedly not conversational. Any attempt to impart an economy to a sentence in this way is a failure to understand the nature of a sentence. Stringers of all stripes may reel from this advice—that is, to make their prose more "talky," against their better judgments and even against their formal educations. As my engineer-boss once said to me—defying my attempts to unstring his noun strings—"Fewer, stronger words are better." This is the meme articulated.

Stream of Consciousness

To me, noun strings feel like stream of consciousness, defined by J. A. Cuddon in his *Dictionary of Literary Terms* as a depiction of "the multitudinous thoughts and feelings which pass through the mind." No doubt that the creative process rests on the uninhibited flow of ideas, where the author records thoughts with abandon as they are dislodged without considering their optimal formation into sentences, outputting words (lots of nouns) until his mind is "done." These recorded thoughts form the basis for an outline, annotated outline, working draft, review draft, and so on. But at some point, the author must account for the reader and craft sentences that promote fluid reading. The noun string is one of many ways to fail to reach the reader.

When it comes time to *compose* thoughts into sentences, the burden changes from "I want to get this content right" to "I want to impart the content in a way that the reader can easily understand." Writers must bow their heads to their readers at some point, and this does not seem to occur when engineers construct descriptions of *things*. In fact, engineers seem to make little distinction between the *writing* that occurs in the early stages of a document project and the refined *composition* that occurs later. The operation of the mind is different during these two stages of the documentation process. Writing is free-flowing, while composition is highly constrained. Writers who habitually form noun strings seem to fail to recognize this distinction.

The Ambiguity of Parataxis

The noun strings in the documents of stringers are mostly failures of syntax. *Syntax* is the formation of phrases. *Semantics* is the meanings of the words that you use to form phrases. But *semantics* is also the meaning of a phrase itself. Typically in a noun string, the words themselves are fine, but the way in which those words are put together creates confusion.

Let's look at what is going on in a noun string that makes it difficult for readers. First, we have obvious *parataxis*: the stringing together of words and phrases either without connective tissue at all—conjunctives and prepositions—or with weak conjunctions such as "and." *Hypotaxis* is often invoked as an opposite rhetorical approach to parataxis. Hypotaxis is the subordination of one thing to another, so you use highly meaningful connectives—such as *because, when, after*—to define the relationships between words and phrases. But hypotaxis rarely comes to the rescue of a noun string. The prevention or correction of noun strings requires the brute-force incorporation of prepositions, conjunctions, articles, and active verbs. Instead of leaving off the connective tissue (as in parataxis) and imposing upon the reader the burden of imagining those relationships (and perhaps failing), writers can explicitly and unambiguously provide the signifiers of those relationships. Whereas parataxis *implies* relationships between words, restoring ligatures makes those relationships *explicit* and moves the responsibility for clarity from the reader to the author, where it belongs.

Nominalizing

A nominal is any word that functions as a noun. But as I have said, stringers press nouns into service as adjectives. Often, words that have verbal thrust are used in noun form to function like an adjective (this is called *nominalizing*). For example, *communication* has a complementary verb form:

to communicate. And yet, in a noun string, the nounness of *communication* is preferred over the verbiness of *communicate*. The noun string *change signal communication protocols* could be written with more verbiness as *protocols that communicate change signals*.

I think that stringers focus on *things* instead of *actions*, and so they overcompensate when describing things by stacking descriptors of actions (instead of verbs) that occur to them as they draft their documents. Here's a real-world example of a noun string that nominalizes two perfectly good transitive verbs:

Acme is initiating **an employee charity giving encouragement program**.

You can't make these things up. This example nominalizes "to encourage" and "to give." The unstrung version is:

Acme is initiating **a program to encourage employees to give more to charity**.

How to Correct Noun Strings

Three-Step Process of Unstringing

A previous section of this article described what we want to correct: omitted connective tissue, incorrect word order, nominalized verbs, parataxis, and spurious noun numbering (singular versus plural). Correcting a noun string involves several manipulations—thoughtful manipulations, resulting in the following:

- During unstringing, the primary nominal in the string—the kernel of the noun string—tends to move from the end of the string to the beginning. Modifiers and recovered verb forms follow to clarify this kernel.
- Connective tissue and verb forms are restored, clearly imparting explicit relationships and action to the sentence. Articles—*a, an,* and *the*—and prepositions are extracted from implicit (elliptical) constructions to form explicit ones. Articles improve the rhythm of sentences, and prepositional phrases subordinate properties and characteristics of the primary nominal.
- Nouns that are spuriously used in the singular (because they are used as modifiers) are recast as plurals. For example, "case study examples" becomes "examples of case studies."

Here, then, is a three-step process for correcting a noun string:

1. **Identify it:** What is the anatomy of a noun string? There are five typical characteristics:
   - First, and most conspicuous, a noun string contains three or more consecutive nouns, with an occasional adjective in the mix, although occasionally, two consecutive nouns constitute a noun string, such as "forum for economics discussions," which is more clearly constructed as "forum to discuss economics."
   - Second, the last noun of the string is the true subject of a verb, object of a transitive verb, or object of a preposition. As objects, noun strings are devils to interpretation. One would expect to encounter an object directly after the verb or preposition, but in a noun string, there are other intervening nouns. The noun stringer treats nouns like adjectives and piles them up to service a primary nominal that he is trying to earnestly explain. Therefore, the primary nominal gets pushed toward the end of the sentence, away from its natural slot.
   - Third, the connective tissue (prepositions, conjunctives, and articles), which describes the relationship between the nouns, is missing (implied).
   - Fourth, sometimes a verb masquerades as a noun. This noun has verbal thrust that can be put into play upon the rewrite.
   - Fifth, the true number of a noun may be misrepresented. When a noun is enlisted to serve as an adjective, the singular form of the noun is typically used. However, upon analysis, one may discover that the notion of the noun is plural, and while unstringing the string, the editor can properly represent its plural form.

2. **Analyze it:** Analyzing is "to separate (a material or abstract entity) into constituent parts or elements; determine the elements or essential features of" (*Dictionary.com*). Analyzing a noun string means to determine the meanings and functions of the words *in* the string, as well as the words that are implied. This is sometimes a painful examination because the author does not come attached to the text, and sometimes an editor has to guess the intended meaning. The examination begins with a simple "reflex" test: Does the thing make sense? Some noun strings will be clumsy and impede fluid reading but still make sense. If it doesn't, then recomposing it will be a chore.

3. **Expand and recompose it:** You can call it unstacking, unpacking, unfolding, unstringing, or whatever, but repairing a noun string is literally expanding and recomposing a portion of a sentence. Once you figure out how one noun relates to another (in step 2), you can often use prepositions to declare relationships, recover nominalized verbs, correct the backward syntax, restore the proper number of a noun—in effect, reconstituting the intended meaning.

In the second part of this article, being published later this year in *Intercom*, I will provide examples of the three-step process for unstringing.

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The Attention-Comprehension Gap:

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A Framework for Rethinking Information Design

By KIRK ST.AMANT | *Fellow* and LISA MELONCON | *Senior Member*

LONG-HELD BELIEFS in document and Web design—what we'll refer to as *information design*—include creating visuals or structuring a document to attract the attention of users to specific content. The overarching idea is if you can draw an individual's attention, it follows that he or she will use the content you've provided. This emphasis on attention, however, can be problematic. Just because your information has caught or held a user's attention does not necessarily mean that the user understands the ideas you wish to convey. In fact, it could be that an aesthetically attractive design—even an attention-grabbing one—might be masking usability problems.

Why? The fact that the information design attracts the user's attention does not inherently mean the individual understands the idea being conveyed. Thus, attention-grabbing information design does not automatically equate to readily understandable displays of content.

This difference between the ability to attract user attention and the ability for users to understand and make use of that content is one technical communicators cannot ignore. As displays of content—particularly those associated with online delivery—are becoming increasingly visual in nature, we need to find mechanisms that examine aspects of attention and comprehension in information design. We propose such a mechanism.

We want to introduce the theory of the *attention-comprehension gap*. This theory is defined as the gap between information design drawing the user's attention to specific content and the users' comprehension of that content. In a well-designed artifact, the gap between attracting a user's attention and the ability of the user to comprehend the ideas conveyed is small to non-existent. The bigger the gap, the bigger user experience problems you have. Here, we overview the idea of the attention-comprehension gap and provide strategies technical communicators can use to minimize the attention-comprehension gap in information design.

Attention ≠ Comprehension

Consider this situation: You are visiting a nation and you don't speak the language. As you are walking down the street, an aesthetically stunning sign catches your attention. In fact, that sign is so impressive that you spend several minutes studying its design. So the sign has done an effective job of catching and holding your attention, but here's the problem: You have no idea what the sign says. In effect, you don't comprehend the message it is meant to convey. In this way, the purpose of gaining your attention—to better convey content to you—has failed. Thus attention does not equal comprehension.

While this example may seem obvious, it's important to think about attention versus comprehension. This distinction is becoming increasingly relevant with the speed of information delivery (via online media) and the ongoing need to differentiate your market share.

Consider much of the research that examines how individuals read or review a document or some other form of communication product (e.g., a website). Often, this research involves technologies such as eye-tracking software that can provide highly accurate data on what parts of a given document or website an individual looks, for how long, and how that individual's eyes move across the page/site when using such materials. In this context, the ability to gather data on attention is very good. Why? Because the resulting data tells us just what catches someone's attention, when, as well as how long a given design feature or text holds an individual's attention. And, in many cases, the results of this attention-based research are used as the foundation for revising existing texts or interfaces or to create an approach for developing new materials.

Let's consider another example. Your company has been asked to create a Web-based annual report complete with numerous graphical representations of key financial data. The information design team decides that it's important to draw the users' attention to these visuals because:

- This sort of report is not the most interesting of reads
- The next quarter's decision making depends on readers understanding key financial information

Preliminary testing of the site shows users are impressed with its design and the visuals it contains. In fact, several users comment specifically on the interactive data displays. However, when your team presents the information to the client a few weeks before launch, the client is completely dissatisfied. You explain and present the results of your preliminary testing. The client responds by immediately pointing out that while the site and visuals are aesthetically pleasing, the way the information is displayed is misleading and inaccurate.

What happened? The user test did not account for the attention-comprehension gap. In this case, there was a considerable gap between the users' attention and their comprehension. Technical communicators want to strive to minimize this gap in information design. Instances where the attention-comprehension gap is small or non-existent represent a condition we call the *stop sign effect.*

Stop Signs, Attention, and Comprehension

The average stop sign is designed in such a way that it does two things quite well. The design of the stop sign—a large, bright red, octagon shape (in the United States)—means it easily gains the attention of most drivers. (In fact, one could argue that such signs are hard to miss.) At the same time, the text on the sign does an effective job of conveying a very specific message: "Stop here!" Even if one is not conditioned by years of driving, the ability of a stop sign to gain attention and convey information in a way that is easy to comprehend is quite effective. Such signs represent an example of a very small (almost zero) attention-comprehension gap (see Figure 1).

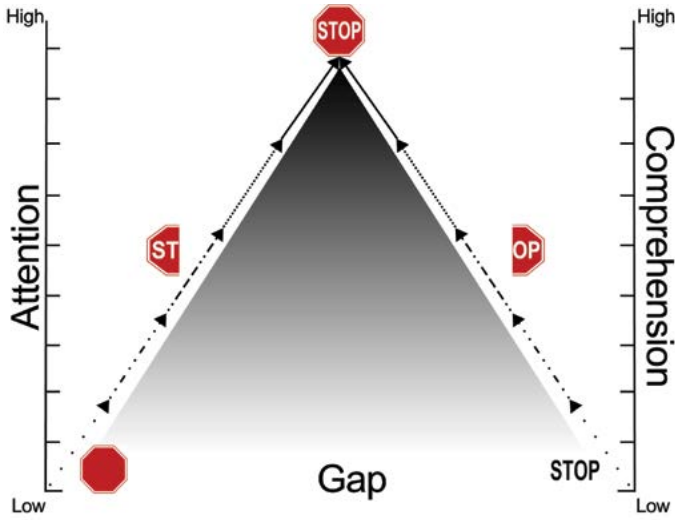

Figure 1. The stop sign effect in relation to the attention-comprehension gap

In Figure 1, when the sign is separate from the text, the attention comprehension gap is the largest. As you move up the scale and the stop sign starts to take the form that we know, the attention-comprehension gap disappears. Ideally, technical communicators can develop materials that minimize this gap and achieve the stop sign effect.

The question then becomes: What steps can technical communicators take to keep this attention-comprehension gap as small as possible when developing different kinds of informational or instructional materials? The answer lies in updating the use of mixed research methods to focus on both attention *and* comprehension.

It's relatively easy to quantify how well a given item catches and holds attention. As noted earlier, technical communicators have long used eye-tracking technology in user tests, and these tests can provide precise data on the aspects of a page that catch an individual's attention by noting what users look at first. Likewise, such technologies can also time how long a user's eyes/attention remains fixed on a given item.

Are eye-tracking devices too expensive? Then one can use a talk-aloud protocol. This is a research approach in which users review a display and speak/say what they are doing/looking at as they review a display and note how they are reading the display. (For example: "My attention is immediately drawn to this item. Now I'm shifting my focus to look at this item.") By timing how long users view visuals based on what they are saying, one can get an idea of the attractiveness of certain design elements.

Both approaches (eye-tracking software and talk-aloud protocols) provide hard numbers—or quantitative

information—that can provide excellent insights in terms of what design features seem most effective at attention getting and holding and what items are not. Using this information, technical communicators can revise the design of "less interesting" features to improve the frequency with which users are drawn to and continue to focus on a particular item. Technical communicators can also continue to refine the design of a given item until it generates successful results (i.e., high numbers) in terms of its ability to attract and hold users.

At the same time they are testing attention, technical communicators also need to test comprehension. In this case, the question becomes: "Do readers understand/comprehend the ideas being conveyed?" To assess comprehension, a different approach is needed—a qualitative one. Qualitative research focuses on observing human behavior to determine why or how well individuals are engaging in a given activity.

In terms of comprehension and information design, we need to ask questions designed to determine if an individual comprehends the information. Such data can be collected through interviews that ask users to explain what they are seeing or reading in order to determine if, or how well, they understand the information being displayed. If qualitative data suggest user comprehension is low, then the related item can be revised and re-tested to see if comprehension improves. And if quantitative research can be used to identify specific items that were confusing or difficult to understand, then these particular aspects can be revised and re-tested through a follow-up round of qualitative research.

In some cases, these two forms of research can be done sequentially, with qualitative data collection (e.g., interviews) taking place after quantitative research data (e.g., the results of an eye-tracking study) are collected. In such cases, the technical communicator could use quantitative data related to attention to shape follow-up questions designed to gather qualitative information on comprehension. For example, after quantitative data indicates an individual spent a lot of time on design aspect X, the technical communicator could ask the individual, "Tell me about/explain X." How accurately the individual is able to answer such questions could be used to determine how well that person understood the information conveyed by that item.

In other cases, technical communicators could collect quantitative and qualitative data in a more simultaneous process—one that allows them to quickly assess both the attention getting and the comprehension efficacy associated with a given product. In such cases, as quantitative data is being generated (such as results from an eye tracker noting where someone is looking), technical communicators can ask immediate questions to gather real-time qualitative data associated with comprehension. If, for example, an eye tracker notes an individual's eyes are instantly drawn to a particular part of a page or interface, the technical communicator can immediately ask a question designed to test user comprehension associated with that eye-catching item, for example, "What is the visual you are looking at asking you to do?" or "Your eyes have just moved to/have remained on X; tell me what idea the text there is conveying." In other cases, such data could be gathered via talk aloud protocols that ask users not only to note what they are looking at but also to explain what they see. Again, this mix of collecting quantitative data on attention and qualitative data on comprehension allows technical communicators to revise a given product. They can then re-test it with the goal of increasing both the success with which the item attracts and holds a user's attention and how well the user comprehends the information conveyed through the related item.

The central idea is that technical communicators need to collect both quantitative data on attention and qualitative data on comprehension at roughly the same time and for the same item. That way, they can test both the ability of an item to attract the user's attention *and* how well users comprehend the information being presented. If preliminary tests result in an attention-comprehension gap, adjustments to the aesthetics of the content's information design can be made. The goal is to use both kinds of data to assess and revise the design of information to attract attention and convey information in an easy-to-comprehend way. Through this approach, technical communicators can identify and (ideally) shrink any attention-comprehension gap. In so doing, they are striving to achieve the stop sign effect of high attention getting and high comprehension rates for all the materials they create.

Minding (and Mitigating) the Gap

By understanding the need to balance attention getting with comprehension, technical communicators can design information that achieves both successfully. The key is to measure both the attention getting properties and the comprehensibility of an item to identify and then reduce or mitigate the attention-comprehension gap. By using a mixed methods (i.e., quantitative and qualitative) approach to data gathering, technical communicators can identify seemingly large attention-comprehension gaps. They can then take steps to modify products to address both factors and thus shrink this gap. Ideally, such approaches allow technical communicators to design information that is effective both at attention getting and at achieving high levels of user comprehension.

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Applying a Six Sigma Approach to Accurate, Effective Translation

By MATT MERMEL

WHETHER FORTUNE 500 conglomerates or small start-ups, many organizations tend to regard translation and localization as peripheral to their business model and profit margins, often delegating the task to in-country employees with no formal translation training. Such an approach toward translation is how, for example, a bilingual secretary or accountant can end up translating a technical training manual. Inconsistent and costly, this ill-advised design process yields error-ridden and mistake-prone outputs, as companies like 3M and Microsoft learned all to well before revamping their translation and localization policies within only the past few years. Limiting and reducing translation mistakes are of particular concern to your organization, as they can incur expensive customs fines and penalties when exporting a poorly localized product to foreign market, not to mention lost revenues and delayed product launches.

An examination of the translation and localization industry, as well as discussions with translation professionals, reveals an intricate link between Six Sigma standards and accurate, reliable, and efficient translation that reduces errors and clearly communicates the intent of a service or product in the target language. As Terena Bell, CEO of In Every Language, notes, effective translation processes are "not about doing more with less, but rather doing better with what you've got." To this end, Six Sigma proves invaluable, with the Define and Control stages constituting the most important components for the translation and localization industry.

Define

In the initial Define stage, language service providers seek to understand the core challenges and obstacles their client faces when translating and localizing products and

services. Via extensive discussions with the organization, the client needs to share all relevant information about its product, as well as its goals for the target market. Moreover, the client should be amicable to accepting changes to this plan as prescribed by the translation and localization firm and its target market experts. A real-life example of the Define stage in action is that of an American packaging company whose translator mislabeled industrial packing "film" as "movies." While many things could have prevented this from happening—better knowledge of the client's product for one—a translation memory, a component of Control, that identified how "film" was to be translated would have auto-filled this word for translation from the client's previously translated materials. Additionally it would have prevented the error from ever entering the document. So translation memory not only lowers costs, but also increases quality.

Control

At the Control phase, companies seek to limit sources of potential waste and error. Because accurate and effective translations that enhance target market performance by their very definition significantly reduce and, preferably eliminate, language mistakes, Control is where an organization begins to refine its translation and localization processes. Translation memories (TM) in particular prove indispensible to sound and effective translation. TM stores previously translated segments in both the original, source language and the new, target language—from individual words to complete sentences to entire paragraphs—in order to make the translation process more efficient and beneficial for both parties. It provides substantial time and money savings for both the vendor and buyer. On the supply side, TM software speeds up the translation process and allows the translator to take on more projects, in turn increasing sources of potential revenue; for the client, TM databases greatly reduce the costs of localization Whenever previously translated segments reappear in new text, the TM automatically processes the terms and replaces them with their designated match. Over time, the cost savings can be thousands to millions, and industry wide, clients save 25% off the base rate per word for partial matches to the TM, while full TM matches are discounted at 50%.

Measure and Analyze

At the Measure and Analyze stages, translation firms review the project's Control components to determine if these tools are actually working for the client organization in the designated target market and delivering tangible returns on investment for the company. These metrics include the number of words translated, the cost of translation per word, and whether or not the translated material has increased sales in the targeting market. Here, the translator seeks to enhance project consistency by resolving a range of matters, such as quantifying and leveraging the amount of new words to previously translated words in the TM and term glossaries to keep costs low. This stage also seeks to determine whether or not the communication strategy of choice (i.e., formal or informal language) for the translated and localized product or service has contributed to improved sales and revenues. Metrics revealed in these stages allow the translator to identify which components of translation and localization process are and are not working for the client and inform the articulation of a principled strategy for the Improve stage.

Improve

In the fifth component of the Six Sigma process as it applies to the translation industry, organizations work to actively implement solutions to lingering concerns identified at the Measure and Analyze stages. Aimed at creating consistency and replicability in the business model, the Improve phase capitalizes upon the client's key performance indicators (KPI), converting the translation process once and for all from a cost center to a strategic profit driver. For example, if translation errors revealed in the Measure and Analyze stages arose due to a furniture client alternating the words couch and sofa, the translation company will recommend clients use either couch or sofa in its original English, but never both.

Conclusion

Going global expands market presence and increases revenues; to do so effectively, companies must internationalize their products. Quality translation and localization goes far beyond simply replacing words in the source language with their corresponding terms in the target. Rather, it requires careful attention to and replication of meaning, tone, context, and intent. At the corporate level, all departments involved in a product's lifecycle must collaborate and cooperate to ensure productive translation and localization outcomes. By adhering to the Six Sigma quality assurance guidelines, your company can limit risk and reduce error while facilitating consistency and reliability at each juncture of the translation and localization process. By implementing the Six Sigma processes, then, translation transforms from merely the cost of your company doing business globally into a robust international profit driver. The tips discussed in this article will go a long way toward helping you and your company initiate fruitful translation and localization projects, or refine an internationalization processes already underway.

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Leverage Transparency to Achieve the Three Goals for Translation: Speed, Quality, and Price

By NATALY KELLY

How do you aim for "all three" when looking for top quality, high speed, and low costs?

OVER THE YEARS, I have talked with many kinds of translation "buyers," ranging from those who want to know every tiny detail of each and every part of the translation process, no matter how technical, to those who don't want to know anything other than that the translations were published on time. I count myself in the first group and have to admit that I'm still surprised when I encounter the latter—especially since there is technology available today that allows anyone and everyone to quickly and easily know just what is "going on" within the translation process.

On the other hand, the translation process may seem so complicated, problematic, and expensive that I understand wanting to pay someone to make the pain disappear, hoping that by paying more for a complete service, all translations will be delivered back to you, perfect, with no questions asked.

There has to be a middle ground—one where you, the translation buyer, has access to the business information you desire, and where the translation experts have all the information and assistance they need to deliver a perfect rendition of your content, for a customer or reader, in a different language and with a different cultural background.

Regardless of how much intricate detail you may be interested in, at the bare minimum every "buyer" of translation services will want to know:

- Will my translations be ready on time?
- Will my customers (or internal, regional teams) be happy? (Although this is more likely to be voiced in the opposite direction: Will there be any complaints?)
- How can I enable my in-country teams to sign off on the translations without a lot of rework?
- Am I receiving good value for the price I am paying? (With the undertone of "How can I ever prove to my boss that we are not over-spending?")

For the translator, the following are some of the key things that are needed:

- What is the style or voice of this client's brand?
- Are there specific translations that I must use to convey the brand?
- What is this client's way of addressing the customer or reader? Do they prefer the formal or informal voice?
- Is there any new content to translate today?
- Can I communicate directly with someone in the client's local office when I have questions about terminology, voice, style, or brand so that questions can be answered quickly?

There used to be a model in the translation agency business that forced the buyer to choose between speed, quality, and price, with the understanding that you could not have all three. If you wanted a fast turnaround time for a rush translation job, for example, you would pay a premium. If you wanted to pay a very low price, then quality would no doubt suffer. Today, we're asking for all three: the right quality, at the right price, and at the speed of light.

If you have worked with or experimented with machine translation (the best known example today is probably Google Translate), you'll also know that it isn't yet perfect. With time and effort, you can "train" a machine translation engine to produce much-improved quality over a free service, but it still won't be good enough to translate your culturally sensitive marketing messages appropriately. It might be good enough to help customers with problem-solving instructions, depending on how they were authored in the source language, but I wouldn't risk my brand on expecting a "good enough" translation of marketing content. So how do you aim for "all three" when looking for top quality, high speed, and low costs?

You do need to understand, at a high level, what is going on in your translation process. Are there manual steps where files are handed over, or even where content is cut and pasted from one environment or file format to another? Where are the bottlenecks? What manipulation of content is the translation agency doing? Answers to these questions can help you determine if there's anything you could be doing differently "upstream" that would make the whole translation process faster, less prone to error, and lower cost. If you do not ask these questions, you may never know unless the translation agency tells you. They are often working so hard to have your translations back to you on time and at top quality, that they do whatever they need to do to make the process work and to keep you, their client, happy. It's a vicious circle because nothing is made more efficient, and the same struggles are repeated so many times that they become the standard practice.

But you don't always need to be someone who wants to understand every technical detail of the translation process. There are a few questions that can help you identify if there is opportunity for improvement. Translation management technology can do much more for you today than simply find and reuse matching sentences. Some of the most common translation issues can now be eliminated by automating manual processes.

Take a look at the list of "don'ts" below. If you are doing any of these manual things today, technology solutions can deliver improvement to speed, quality, and price.

- **Manual hand-off of files or content.** Is someone "extracting" content from files and putting it into a file format that is "easier" to translate, such as a spreadsheet? There's a better way. You no longer need to manually copy and paste sentences for translation—this can all be automated.
- **Manual identification of content that is new or has been changed.** Today such content can be identified automatically and then routed to the next person who needs to take action—typically a translation project manager—or even directly to the person who is doing the translation.
- **Providing spreadsheets or lists of terminology ("glossaries")**, which the translators are then expected to refer to while working on a translation. If they are not already using technology that recommends your preferred terminology to them as they work, without the extra step of researching in a separate file or location, then the process is not as efficient as it could be.
- **Providing screenshots or other "pictures" of a website or document**. The purpose of this is so the translator can (hopefully) determine how the sentences they are translating fit into the overall context of the finished product. Without context, the translator has to ask the project manager, who has to ask the translation client, who has to ask the developers, what the word "home" in file1235x.htm means. There are solutions available that can enable the translator to know exactly where the word "home" will be displayed on the final website, improving translations in two ways: by eliminating the

time and effort needed to track down an answer and by allowing the translator to provide top-quality translations immediately.

- **Providing screenshots or PDFs to in-country reviewers** to mark up and send back to the translation agency, so that they can then try to find the right place to make changes in the translation. Instead, reviewers (like translators) can see the content in need of translation as the end customer will see it and can immediately adjust translations as they review them, and they are likely to find far fewer things to change, as the translator had everything needed to make the translation perfect on the first attempt.
- **Re-packaging and manually returning the translated files** for re-compiling, publishing, or processing prior to delivery to your end customer.
- **Calling or emailing your translation agency** to ask them if the translations will be delivered on time. Today, you can have access to status information from anywhere you have a Web browser even if your translation project manager is on the other side of the world.

Every manual step in the translation process is an opportunity for more efficient processing and less opportunity for error. That's why the end-to-end process should be open and transparent, and why you really should ask to "see inside" the black box process. Or ask someone to look inside for you. By automating those inefficient, manual processes, you can be well on your way to all three goals for translation: speed, quality, and (the best) price.

NATALY KELLY *is the VP of Research at Smartling (*www.smartling.com*), a translation management software platform provider based in New York. Nataly brought nearly two decades of translation industry experience when she joined Smartling, most recently serving as Chief Research Officer at industry research firm Common Sense Advisory. Previously, she held positions at AT&T Language Line and NetworkOmni (acquired by Language Line), where she oversaw product development. She is a former Fulbright scholar in sociolinguistics, a veteran translator and certified court interpreter for Spanish, has formally studied seven languages, and regularly speaks at industry shows and conferences.*

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* *Fluid* is approved as a noun only, unlike *liquid*, which is approved as a noun and as an adjective.

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Kit's Commentary:
STC President Mid-Term Report

BY KIT BROWN-HOEKSTRA

THE THEME FOR this year has been one of change as STC aligns its strategic plan and offerings to a revised mission statement (*www.stc.org/about-stc/the-society/mission-vision*) so that we can continue to meet the needs of our members and ensure a solid foundation for the next century.

Member Growth

For the second year in a row, we are seeing a fast start to renewals and growth in membership as more people join our professional association. The Corporate Value Program is also gaining traction, with increased and new memberships from companies who employ five or more technical communicators.

Member Value and New Programming

The staff and volunteers have been working hard in the background to improve member value:

- We are offering more free, member-only webinars on a variety of topics.
- Gold members now receive a free print copy of *Intercom* as part of their membership package.
- We have a new Special Interest Group on Agile (see *www.stc.org/about-stc/communities/special-interest-groups/item/agile?category_id=38*). Many development teams are moving to this methodology, so an Agile SIG is a timely addition to our offerings.
- The Mentor Board (*www.stc.org/education/1414-mentor-board*) is available for members and nonmembers alike. Members consistently cite networking opportunities and professional nurturing they get from other STC members as a key reason for joining. If you haven't yet signed up for the mentor board, please do so and share your knowledge and questions. Mentoring is an easy, yet high-impact way to support our colleagues and students, who are the future of our organization.
- The *2013–2014 Salary Database* is available again this year through a generous sponsorship from Adobe, with updates on how the stronger economy has and will continue to influence the demand for technical writers. The database is a tool you can use to conduct more powerful job searches, make a strong case for a raise, or prepare department payroll budgets (*www.stc.org/publications/products/salary-database*).
- Several companies participate in the Affinity Program (*www.stc.org/membership/join-or-renew-now/affinity-program*), which offers discounts to members for products and services.
- We are building partnerships with related organizations to allow our members, to benefit from discounted educational offerings and conferences.
- A team of dedicated volunteers continues to build the Body of Knowledge into a curated set of resources for all members, and they have launched a new website (*www.tcbok.org*).
- Last fall, we responded to an RFI from the White House National Economic Council and Office of Science and Technology Policy, which asked questions about strategies for american innovation. We highlighted several ways that technical communication skills are critical to workforce development and innovation.

Certification

For the past year and a half, we have been working to restructure certification to improve scalability and ensure its financial stability. We are pleased to announce that we are partnering with an accreditation, certification, and examination body, APM Group (*www.apmgroupltd.com*), which specializes in certification schemes internationally. As part of this effort, we are also working to align our educational and conference offerings to the certification paths we are developing.

In the coming months, we will be introducing the revamped program, starting with a foundation-level certification. More information about the program will be communicated to all STC members and certified practitioners later this year.

Summit in Columbus, Ohio

This year's Technical Communication Summit (*http://summit.stc.org/*) will be held in Columbus, Ohio, 21–24 June 2015. We are making some changes to the Summit to expand the fun and strengthen an already great learning experience.

We will have both an opening and a closing keynote speaker this year:

- **Opening Keynote:** Nancy Duarte, bestselling author and CEO of Duarte, Inc., will show us how changing the world starts with transforming an audience, and the audience will only change if you resonate with them.
- **Closing Keynote:** Denise Jacobs, a Creativity Evangelist, will teach us techniques to make our creative processes more fluid and to make our work environments more conducive to creative productivity.

There will also be some significant changes to the way we honor our award winners and recognize our Associate Fellows and Fellows. Everyone is welcome to attend the Honors Reception for free as part of your conference package this year. Our goal is to make this a more inclusive and entertaining event, and to give our honorees more exposure and recognition. Come join us to honor your peers!

Staff Updates

CEO Chris Lyons, Director of Membership & Corporate Relations Stacey O'Donnell, and Director of Communications Liz Pohland provide excellent leadership for the office staff. Elaine Gilliam continues her work with meetings, committees, and volunteers, and Kobla Fiagbedzi provides IT and Web support.

Promotions

- Lida Khodabakhshi was promoted earlier this year to Senior Accountant and is doing a stellar job of managing our accounting and working with Chris to continue to improve our financial position.
- Cheryl Miller, Membership Services Manager, was recently promoted to this position and will now focus her efforts on working with Stacey to build membership and support existing members.

New Hires

- Molly Jin, Director of Meetings and Education, is an enthusiastic and creative leader with a background in association management and continuing education.
- Kimberly Kelly, Education Manager, has worked for several associations and has a strong background in marketing and education. She works with Molly to create compelling, quality educational programs for our members.
- Marisa Seitz, Communications Manager, has a background in technical communication and works with Liz to manage the marketing and communications, Web content, and *Intercom* and *Technical Communication* production.
- Deborah Repasy, Membership and Education Coordinator, has just joined the staff in early January with a background in iMIS and educational administration.

Conclusion

The road ahead for 2015 looks smoother and straighter than ever. It is a pleasure to work with the dedicated staff, board, and volunteers.

Seeing the Sites in Columbus, Ohio

WHILE YOU ARE IN COLUMBUS for the Summit 2015, you might want to spend a little time playing tourist. Here are some possibilities for you to consider.

If science is your thing, COSI, Columbus, Ohio's dynamic **Center of Science and Industry**, features more than 300 interactive exhibitions and over 100,000 square feet of exhibit space. It also has a seven-story Extreme Screen Theater with the largest screen in Ohio, an outdoor science park, and the country's only high-wire unicycle. In 2008, COSI was named America's #1 science center for families by *Parent Magazine*.

Country music fans might want to come early and attend the **Buckeye Country Superfest** on June 20 and 21st at the Ohio Stadium. It will include the following artists: Blake Shelton, Rascal Flatts, Kenny Chesney, Keith Urban, Lee Brice, Tyler Farr, Cassadee Pope, Cole Swindell, David Nail, and Parmalee.

The **Columbus Zoo and Aquarium** is home to more than 10,000 animals representing over 575 species from around the globe. The zoo complex includes the 22-acre Zoombezi Bay water park and 18-hole Safari Golf Club.

If you prefer flowers and butterflies to the zoo scene, the **Franklin Park Conservatory and Botanical Gardens** is for you. The Conservatory is situated in the 88-acre Franklin Park just two miles east of downtown Columbus. There are indoor gardens filled with exotic plant life and artwork as well as outdoor botanical gardens, art sculptures, open green space, and a one-mile walking loop.

History buffs might want to check out some of the historical sites not far from Columbus like the **Newark Earthworks** built by the Hopewell culture nearly 2000 years ago, or the **Great Serpent Mound** a little further from Columbus, built even earlier.

Getting around is easy! Take the FREE CBUS to **German Village** and other exciting restaurants and attractions. Check out the rest of the COTA site to find the Zoo Bus and get around other areas of Columbus.

If you are the type that would like to work out your own excursions in downtown Columbus, or nearby, *www.experiencecolumbus.com* has some great tools to allow you to do so.

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Franklin Park Conservatory and Botanical Gardens

Introducing the 2015 Summit Opening and Closing Keynotes: Nancy Duarte and Denise Jacobs

PRESENTATIONS ARE OFTEN overlooked as a necessary evil of business, but they are actually critical to your success. In fact, those who master communicating with them rise faster than their peers and reach more customers than their competitors. That's why STC is proud to announce that **Nancy Duarte,** best-selling author of *Resonate: Presenting Visual Stories That Transform Audience* and CEO of Duarte, Inc., will be the opening keynote speaker at the 2015 Summit.

To kick off the Summit on Sunday, 21 June, Duarte will demonstrate how to apply the methods in her book to build meaningful connections with audiences that compel them to action. Her groundbreaking work details a new way of structuring a presentation and connecting with an audience, helping the presenter create a human connection. After all, changing the world starts with transforming an audience, and an audience will only change if you resonate with them.

The 2015 Summit will also set itself apart from previous years by featuring a closing keynote speaker, Web design authority and 14-year industry veteran **Denise Jacobs**. Jacobs is a speaker, author, and creativity evangelist who evangelizes techniques to make the creative process more fluid, methods for making work environments more conducive to creative productivity, and practices for sparking innovation. Through speaking, trainings, and writing, she shares big concepts that challenge the status quo and lead to "a-ha moments" that translate into immediate actions, skills, and new habits to transform all aspects of people's work lives with focused creativity. Jacobs's presentation will close out the Summit on Wednesday, 24 June.

In addition to these two powerful keynote speakers, STC has also announced the full education program for this year's Summit. Exact dates and times are still being solidified, but check out the STC website to see the full list of sessions and a schedule-at-a-glance, which includes Expo hours, networking opportunities, receptions, and more at *summit.stc.org/conference/schedule-overview/*.

Join these keynote speakers and attend valuable education sessions at the STC Summit from 21–24 June. Register today!

U.S. Members: Deduct Your STC Dues

YOU MAY BE ABLE to deduct membership fees or dues you pay to STC. However, you can deduct only the amount that is more than the value of the benefits you receive.

If you pay taxes in the United States, keep in mind that STC dues are tax deductible. Please note, however, that dues must be deducted from the tax return filed for the year in which they were paid. In other words:

- Dues paid in 2014 may be deducted only from 2015 tax returns.
  - If you paid your 2014 dues in 2014 they may be deducted from your 2014 taxes.
  - If you paid your 2015 dues on or before 31 December 2014, these dues may be deducted only from your 2014 return.

Members who have questions should contact their local IRS office, read IRS publication 526 and 17, or contact their accountant.

You can claim dues as a deduction in one of several ways: as a charitable expense, a business expense, or a miscellaneous deduction.

Charitable Expense

Gold members may not deduct their membership as a charitable contribution since the Gold membership is valued at an amount that exceeds the dues charged for that membership. It

may still be deductable as a business expense as noted below.

As a 501(c)(3) organization, STC is a qualified organization and is required by law to notify members of the value of tangible benefits received as part of their dues payment. In 2014 the tangible value is $30 ($14 for *Technical Communication* and $16 for *Intercom*). This amount or a prorated portion (if a member for less than 12 months) should be deducted from total dues payment to arrive at charitable contribution amount.

Example: $225 for Classic membership minus $30 in tangible benefits equals a deductable amount of $195.

Business Expense

Employers and self-employed consultants may consider amounts paid as a business expense for all STC membership categories, including Gold membership.

Money, Not Time

While dues, contributions, and out-of-pocket expenses may be deducted, personal services may not.

Please Note

The information provided above is for your convenience only and should not replace the advice of your tax professional. STC does not provide formal tax advice for individuals regarding their personal tax situation.

The Value of STC's Corporate Value Program

TAKE A QUICK LOOK around your office—do you see four or more technical communicators? If so, your company may be interested in STC's Corporate Value Program!

STC's Corporate Value Program (CVP) membership level provides companies the ability to register their technical communication employees as a group in the Society, saving money on membership dues and gaining extra benefits as well. Join organizations like Oracle, Wells Fargo, Yahoo, Boeing, CA, MailChimp, SAS Institute, Booz Allen Hamilton, and dozens more.

All CVP individual members (i.e., the employee) receive full Classic-level benefits from STC: discounts on education, online subscriptions to *Intercom* and *Technical Communication*, a copy of the *Salary Database*, over 140 free archived seminars, and more. And the organization benefits, too, with:

- A copy of STC's *Salary Database*
- 10% off job postings on STC's Job Bank
- The ability to transfer memberships if an employee leaves the company (e.g., if Joe Smith leaves and is replaced by Jane Doe, you can transfer Joe's membership to Jane)
- Your corporate logo and link to your site on STC's CVP page
- Discounts on marketing, advertising, blast emails, and exhibiting at the Summit
- Additional publicity opportunities through STC
- One free webinar for every five your company purchases, providing extra savings while you train your employees

"The discounted CVP membership will enable more joining/participation by Oracle writers in general," explained Mari Wozny of Oracle when asked about the program. "My particular department will benefit most from the STC reading materials and webinars."

Individual members of CA's CVP membership agreed, with Kathy Snow McKinstry pointing to STC education, specifically webinars, as the biggest benefit, stating: "I share the information from these with my team members" so the entire organization benefits.

And while the minimum number of employees required for a CVP membership is five, the more members you join with, the more you save! Membership dues for five to nine members are just $185, a $40 savings over the regular Classic membership rate of $225. Ten or more members? Save $50! Twenty-five or more? It's now $60 off per member. And if you join with 51 members or more, dues are just $155 each. (Chapters, SIGs, and other á la carte items can always be added.)

If your company doesn't pay for association memberships, you can still coordinate with coworkers to join together and save. Simply designate a contact person and coordinate one payment through that person. The more people from your company you recruit, the more you save on your own membership as well—and you still get all the extra benefits a CVP membership brings.

STC is happy to speak with your management as well to fully explain the program and how your organization can benefit. With the CVP savings and extra benefits added onto everything the individual Classic members get, the ROI your company receives is tremendous. Wozny explains, "Oracle is committed to driving innovations and improvements across all its organizations. Joining STC is another way to drive awareness of writing trends, etc., along with possible improvements in the technical communication areas within Oracle."

Learn the value of the STC Corporate Value Program. For more information, contact STC's Director of Member and Corporate Engagement Stacey O'Donnell at *stacey.odonnell@stc.org*.

Getting the Job:

Another Reason Why I Renewed My Membership

BY JOEL MEIER | *Associate Fellow*

Editor's note: The following was originally published on the Rocky Mountain Chapter blog. It's being reprinted in Intercom *with permission.*

IN THE YEARS past, I wrote a blog about how much a cup of Starbucks (~$1.85) or cable TV (~$2.20), or Internet (~$2.33) costs each day compared to the daily cost of an STC and community membership ($0.60) combined. In years past, I also wrote a blog about the fantastic amount of education STC has to offer in free, on-demand, archived seminars alone. It was around 70 at the time I wrote that blog; it is over 140 this year. I *could* do that again this year, as I think it is proof enough, but I won't.

This year I'd like to share the connection I experienced between STC and getting a job. I had the unfortunate opportunity to look for a new workplace this year. It all worked out well and much of my success was due to my membership with STC and the Rocky Mountain Chapter.

You'll need a little background about me. I knew about DITA and structured authoring but really had no use for it anywhere I had worked. I attended a few sessions on DITA and content strategy at the 2013 Summit, and I became convinced that DITA was the way to go. And even if it only became a hobby, I was going to learn it.

So, as I said, I walked into work one morning and by the afternoon I was a free man. I was a free man with a passion for DITA but not much solid experience. Here are the steps I took from getting laid off to getting the job. And I know my approach is not unique, but I feel that Step 3 is important enough to share.

1. **I cleaned up my resume**. I updated it, shortened it, and then sent it to *everyone* who would review it, especially professional tech writers in STC. I made edits, corrected embarrassing mistakes, and updated LinkedIn, Google+, Facebook, and so on with the changes.
2. **I sent my resume to my STC contacts**, explained my newfound freedom, and asked for help.
3. **I used my spare time wisely**—to educate myself.

As I wrote earlier, this was the most important step for me. I had already been studying DITA and content management strategy since the 2013 Summit—as much as I could here and there. Now I had the free time I needed to concentrate on it. However, my free time was limited—I still had to find a job. That was priority one. I had to focus my attention on what exactly it was that I wanted to learn. So what did I do?

- I watched every free, on-demand, archived seminar from STC on content management, content strategy, XSL, XSLT, DITA-XML, DITA-OT, and so on. This gave me a scope of topics to focus on.
- Using the knowledge I gained from the free, on-demand, archived seminars, I:
  - researched for materials (both free and paid) that would expand my knowledge about DITA-XML authoring.
  - read everything and watched all the videos I found.
  - downloaded a trial copy of an XML-aware editor and used that to author anything and everything I could think of.
  - downloaded and used the DITA-OT.

STC was a very important part of Step 3, because while I had the passion to learn about DITA-XML, content strategy, and content management (insert your own tech comm subject here), I was not well-versed enough to pull all the pieces together and envision how they might apply to different tech pub scenarios. The free, on-demand, archived seminars from STC gave me a solid foundation in which I could build my knowledge of those subjects. The videos I watched were focused, professional presentations from presenters who are not only leaders in STC but also leaders in the industry. In every phone and in-person interview, I used that knowledge.

Not every employer I had a discussion with was interested in DITA, but once we started talking about content strategy and content management, they were interested in what I had to say about the subject and we had a great conversation. Eventually I had an interview with an organization that was using DITA-XML. Furthermore, the manager had a content strategy in mind. And we had a great conversation, mainly because I knew the right questions to ask. I am positive that because that interview turned into a conversation, I was invited to join that tech pubs department at Oracle. In other words, I got the job.

At first, for me, STC was about membership. Being part of the Society. Heck, it looked good on my resume. And my employer paid for it. So, yeah, why not, it was free. Gradually, STC became about volunteering, learning about new technologies, and sharing ideas. And somewhere in between, my employer stopped paying for it. Today, STC is about winning and sticking with the winners that stuck by me for 15+ years. Does STC membership cost? Yes. Is it more expensive than some other organizations? Yes. However, it provides a wealth of education that far exceeds the membership costs—if you use it. And as Derek Bok famously said, "If you think education is expensive, try ignorance."

Hurricane Sandy: The Perfect Storm of Ethical Dilemmas

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BY ROBIN GOSSER

TRINA DAVENPORT WAS a successful project manager for Catastrophic Consultants, Inc., a company specializing in insurance claims processing arising from various natural and manmade catastrophes, most of which were environmental in nature. She enjoyed her job immensely, especially the variety of types of projects and different locations where she was sent to work that provided her opportunities to see different parts of the nation and world and to meet various types of people. While she never enjoyed seeing disasters occur or the destruction in their wake, she often found herself slightly excited when a hurricane struck or an oil rig exploded, despite the fact that lives were lost and property was destroyed. Mixed feelings would emerge, as she got the call to fly out on a project at a moment's notice, in response to a tragedy. Another adventure! Another opportunity to help people in need by providing them expedient information and resources related to their insurance claims or government pay outs. She was happy to help, happy to see her company benefit from catastrophe.

Her latest project consisted of handling claims for homeowners in New Jersey who were devastated by losses from Hurricane Sandy, which struck the area on 22 October 2012. Over 346,000 homes were damaged or destroyed in that storm, so the project was quite large. When her boss, Brian Nottingham, contacted her to go, she did not hesitate. She knew the significance of the project for their small consulting company. This was definitely a big break for them—potentially the opportunity of a lifetime.

Brian had been waiting for this for many years, some of them very lean, so this was a major boon to the ultimate success and long-term viability of the company. Trina knew this, and this was one of the reasons she was so excited.

She quickly set up temporary offices, called in adjusters and processing staff, and set about the daily work of

This column features ethics scenarios and issues that may affect technical communicators in the many aspects of their jobs. If you have a possible solution to a scenario, your own case, or feedback in general, please contact Derek G. Ross at *derek.ross@auburn.edu*.

project management. Oftentimes this work involved various forms of professional communication, from working with local governments regarding ordinances and relief efforts, to discussing the claims form completion with upset homeowners. She often provided daily reporting to her boss Brian who was interested in the progress made in processing claims. At times she conferred with attorneys about legal questions regarding real estate. She also reported the required weekly completion data to the insurance company who employed them (Mega Insurance, Inc.), including totals of man hours spent on the project and dollar totals of payouts. Timely reporting was crucial, and Trina was a wizard at this. Her reputation for organizing a team efficiently, rallying them to perform when facing tight deadlines, gathering data and reporting it expediently, etc. became apparent to most parties involved. She represented Catastrophic Consultants, Inc. very well.

New Opportunities and Their Challenges

One day toward the end of the project, Trina and Brian were talking about their success. They had just returned from a meeting with Barbara Wolster, their main contact with Woodbridge Township, New Jersey. Barbara had been impressed with them and had hinted that she would like to continue to work with them in the future if other opportunities arose. Trina and Brian, buoyed by confidence in their work being received so well, decided to brainstorm ways that their consulting firm could provide additional services to the citizens of the area. They didn't determine a new project that day, but later the next evening, Trina had an idea. She knew there had been a toxic spill from a large chemical manufacturer in the nearby area, all related to Hurricane Sandy flooding, and the claims had been processed by their competitor in the industry, International, Ltd. That did not bother her because she knew that about 4,500 properties had been ruled inhabitable. The insurance company for the chemical manufacturer paid out the claims to the homeowners. But the opportunity came in the aftermath of this—the land was to be purchased by Woodbridge Township, with plans to remediate and possibly rezone it, to create parks and new commercial space. (Barbara had just shared that insider news with her during lunch that day.) Their company, Catastrophic Consultants, Inc. could assist with this! Surely the township would need assistance in

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Sandy's Damage to the New Jersey Shore

Editorial Note

In 2012, Hurricane Sandy caused wave after wave of destruction in Jamaica, the Dominican Republic, Puerto Rico, Cuba, The Bahamas, the United States, and in Canada. While we're now three years along, the following ethics scenario is remarkably timeless in asking us to consider important ethical questions about the types of competitive industries that rely on disasters for their livelihood. The questions raised here, however, are not localized to disaster relief. Robin Gosser's column does indeed represent a storm of ethical dilemmas, and I suspect that many of you will find elements relevant to your work.

In our last column, we considered the ethical responsibilities of technical communicators working with small businesses. Here, we consider the activity, literally, of making *business. In presenting these ethics scenarios, I hope to cast our daily activities in a fresh light—so often, the day-to-day actions of our jobs, and the attendant expectations that go with any sort of technical communication, allow us to forget the potential implications of our actions. It is my hope that these cases help us remember to ask questions and speak up when needed.*

As always, we welcome your responses. Let us know your answers to the questions we've posed, your thoughts on our roles as technical communicators in general, or send us your own ethics cases or column ideas. Please send your responses to derek.ross@auburn.edu. *Responses will be printed in an upcoming issue of* Intercom *as space permits.*

—Derek G. Ross

handling the surveying, appraisals, and purchase of the property from each individual homeowner. There was no way Woodbridge Township was equipped to handle a project of that size. It was the perfect project management opportunity.

The next morning, Trina rushed into Brian's office with her idea. He asked her to prepare a proposal, complete with a PowerPoint presentation, that they could use to convince Barbara and the other township managers that the problem existed and that Catastrophic Consultants were the ones best suited to handle it. Trina worked diligently through the night, gathering remediation data, forecasting, and estimating time to completion, etc. She proudly handed the proposal materials over to Brian the next day.

"Thanks," Brian said coolly. "I'll take it from here." Disappointed that she wasn't invited to present the information, or at least assist in presenting it, Trina resumed her normal duties on their current project. She waited anxiously for Brian to return from the meeting with Barbara to hear how it was received, thinking it was her work, after all. Finally, he returned, grinning ear to ear.

"They loved it! They were totally convinced of their need and our ability to fill it. We scored!" Brian couldn't contain his excitement. Then he proceeded to toss the proposal and presentation materials down on Trina's desk.

"All they ask us to do now is write the request for proposals for them, and then send ours in once the call goes out! Get to it, Trina! This one is gold!" And with that he walked out of the office.

Trina's face burned a bit as she heard his words while she noticed that he had removed her name from all of the proposal documents. The only name listed was Brian's, but he hadn't written a word of it. She wondered if it was ethical of him to take credit for her idea and hard work in researching and writing the proposal, but what worried her more than that was the idea of writing a Request for Proposals *for* a governmental entity that they wished to win the bid from. It made her slightly uncomfortable. Surely networking, forming friendships, sharing information, and helping each other was all part of the business process, right?

Certainly this happens frequently in various industries, and it would make prudent business sense for organizations to utilize the services or products of vendors that they know and trust. According to Michael Wyland, a consultant and writer for The Institute of Management Consultants, it is common practice for organizations to have a client in mind before they write the RFP. Wyland states, "There are times when an organization uses an RFP process to provide documented cover for a contracting decision already made. It's often difficult to assess from the outside whether an RFP process is truly 'open,' or whether there is a 'preferred vendor' awaiting a final decision." Wyland warns consultants who are considering writing a proposal blindly that they may be wasting their time. But in this case, Catastrophic Consultants, Inc. was not wasting its time—the company had the relationship and the expertise.

Trina contemplated the ethics of this for a day or so, but she ultimately wrote the RFP that fit her company perfectly. The RFP went out to the public, according to standard government protocol, and her company received the contract. The company continued to flourish with their spotless reputation and growing network of projects.

Questions to Consider

There are several ethical considerations in this case study. First, do you believe that it was okay for Trina to use "inside" information not available to the public when she created the proposal? Are there instances when technical writers are called to do this ethically? Do you believe Brian was within his rights to remove Trina's name from the documents that she created and to take credit for her ideas? As technical communicators, do we have a right to claim authorship? Should Trina have been included in the proposal meeting? Why or why not? And finally, probably the biggest question, should Catastrophic Consultants have written the request for proposals for Woodbridge Township, knowing that they were going to submit a proposal to that very request and that they were going to be the ones to win the project? Why would this action not be ethical? Are there any instances in which it might be okay to do this? i

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Through Glass: Reframing Technical Communication Practices via Google Glass

BY JASON THAM

WEARABLE TECHNOLOGY is more than a popular fad. It is part of the next evolutionary steps for personal computers, which have evolved from room-sized machines to mobile devices we hold in our hands to flexible devices we now wear on our head or wrists. In her recent study, *Garments of Paradise: Wearable Discourse in the Digital Age* (2014), Susan Elizabeth Ryan of Louisiana State University School of Art regards wearable technology as an evolving set of ideas and behaviors—a technology that has tangible effects on our bodies and on our interactions with others.

Accordingly, wearable innovations are opening new opportunities for re-thinking our daily activities—everything between the personal and professional. For technical communicators, such innovations allow for new approaches in designing and visualizing technical content across multiple media, audiences, and contexts. In this entry, I explore the different ways in which technical communicators might integrate the use of one kind of wearable technology—Google Glass—into a range of activities from researching and data gathering to editing and writing. (Google Glass is a wearable computer with an optical head-mount display [see image above].)

Documentation

One key feature of technologies such as Google Glass is that they allow technical communicators to engage in hands-free point-of-view documentation. Using voice commands and the Glass camera, technical communicators could record meetings with clients or discussions with subject matter experts (SMEs) and use those recordings for later reference. One simple way is to take, access, and organize these recordings using Google Glass in conjunction with programs like Evernote, a software that is designed for note-taking, bookmarking, and archiving memos. Think of it as a voice-controlled notepad on Google Glass.

During review sessions, user tests, or focus group discussions, technical communicators could use the wearable technology to track comments provided by users and edit resulting suggestions through video recording. Users could employ the same technology to bookmark and catalog places in a given text, website, or interface where changes are recommended by snapping a picture or recording the suggestions in video. These images and videos could then be

This column features the work of individuals currently enrolled in or recently graduated from educational programs in the field. Contributors examine how theories and concepts encountered in their classes can be applied to technical communication practices. To submit a column, email the editor at *STAMANTK@ecu.edu.*

sent to a range of individuals—from project managers to technical illustrators to other technical communicators—after the review session. Such feature adds value to the review process, one that enriches collaboration between the user and the technical communicator.

Similar to these user-testing situations, technical communicators may use the wearable technology to capture images and videos when editing and revising their own work or the work of others and offer voice feedback to collaborators or other project team members. Devices such as Google Glass also allow technical communicators to personally record overall sessions (e.g., user tests, focus groups, interviews, etc.) via the Glass camera and review the footage for feedback, improvement, and/or professional development purposes. Using third-party software like ANVIL, these videos could be annotated and shared with others throughout the course of a project.

Communication

Multiple Google Glasses can be paired during user testing, focus groups, or field tests of different products to allow technical communicators (as well as other project team members) to communicate with one another via a backchannel during a given session or meeting. Technical communicators may also use Google Glass's messaging feature to send short messages to the home office or to a client during such activities. This feature may be particularly helpful should the members of a project team wish to ask questions privately (i.e., without a user knowing). Additionally, with current efforts to add streaming sign language interpreters into Google Glass, technical communicators could soon use Glass to improve communication with hearing- or speech-impaired colleagues or clients.

Collaboration

Wearable technologies like Google Glass may take conference calls and meetings to a new level. Using the video calling function, technical communicators and clients may join meetings from virtually anywhere in the world. Locally, individuals may move around the office and across meetings to gather applicable information to share with different teams. To further enable collaboration, technical communicators may create a group social profile on Google+ and let project team members share their documents and other materials there. A shared Google Drive may also be set up for similar function.

Notification

As developers continue to explore new applications to add to wearable technology, technical communicators should consider new ways to use such technology to revolutionize workflow and project management. Using Glass's Notification Glance feature, technical communicators could set up special notifications for due dates and specifications for projects and team activities. To be more creative, technical communicators may use these notifications to set a timer for specific group meetings or project activities. The feature also allows individuals to pair different Glasses with personalized notifications that instruct individual team members on what to do in in relation to a particular phase of the product development process. This approach has the benefit of inviting new interactions or ideas that may not be possible in traditional technologies like the email or chats or other project management systems.

(Re)Searching

Using wearable computers such as Google Glass, technical communicators can also look up real-time information from the Web during a particular meeting, user test, or focus group session. The Glass Search feature allows technical communica-

Applications and Online Resources Noted in this Entry:

ANVIL (*http://www.anvil-software.org*)—A software that allows in-video color-coded annotations and sharing.

Evernote (*http://evernote.com*)—A suite of services designed for note-taking, bookmarking, and archiving documents and Web pages.

Glass Notification Glance (*http://support.google.com/glass/answer/3086048?hl=en*)—A feature built into Google Glass's setting that allows users to respond to notifications by tilting their head up.

Glass Search (*http://support.google.com/glass/answer/3081924?hl=en*)—A feature on Google Glass that allows users to do a Google search on the moment.

World Lens (*http://en.wikipedia.org/wiki/Word_Lens*)—A translation service app that uses Google Glass's camera to scan and identify texts in foreign languages, and translate and display them on the Glass's lens.

Connected Learning Model (*http://connectedlearning.tv/what-is-connected-learning*)—A social learning theory that builds on past learning approaches and values that utilizes new technology to enhance the learning experience and make connections.

Personal Learning Networks (*http://en.wikipedia.org/wiki/Personal_learning_network*)—An informal learning network that consists of the sources a learner interacts with and derives knowledge from in a personal learning environment.

More Glassware can be browsed and downloaded from *http://glass.google.com/glassware*.

tors to quickly access Google Search without having to pull out their phones or computers. Through Glass's World Lens app, technical communicators may also translate printed words from one language to another in real time. This feature could drastically change the way non-native speaking individuals participate in different kinds of user testing and focus group activities.

The Google Glass Navigation feature can help technical communicators to navigate themselves in an unfamiliar location by looking up routes to different places with turn-by-turn navigation. Technical communicators may also use this feature to get a bird-eye view of a city's traffic report and road condition—information that might be crucial for planning a meeting later in the day or a business trip to Minneapolis next week.

Personalized Learning

Finally, wearable technology such as Google Glass should be used for their potential in expanding technical communication opportunities in personalized ways. Through a connected learning model, technical communicators may create and maintain personal learning networks (PLNs) and plans—mapping out their project goals and ways to achieve them—using the various production and documentation features afforded by Glass. By using Evernote on Glass, technical communicators may design different project plans by "writing" through on-the-go voice commands. Current Glassware also offers access to meet-up events, where technical communicators can gather to learn about topics relevant to their jobs. These affordances can motivate individuals to increasingly engage with, re-think, and participate in enrichment projects.

While many remain skeptical about walking around with a head-mounted computer, I believe more energy should be channeled toward designing and experimenting innovative ways to use wearable technology in technical communication activities. As technical communicators, we should be positioning ourselves at the forefront of exploring wearable devices such as Google Glass from the perspective of the user, with an eye toward their potential for reframing documentation, user testing, and project management processes.

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1 12–16 February
The 2015 **American Association for the Advancement of Science (AAAS)** Annual Meeting will take place at the San Jose Convention Center in San Jose, CA. The theme is "Innovations, Information, and Imaging." For more information, please contact:
AAAS
+1 (202) 326-6450
meetings@aaas.org
http://meetings.aaas.org

2 18 March
The **Association of Teachers of Technical Writing** will hold its annual conference in Tampa, FL. The theme is "Exploring the Value of Technical Communication." For more information, contact:
ATTW
meloncon@tek-ritr.com
www.attw.org/conference

3 27–28 March
The **STC New England Chapter** will hold its conference Interchange 2015 at the University of Massachusetts, Lowell Campus Inn and Conference Center in Lowell, MA. For more information contact:
interchange@stcnewengland.org
www.stcnewengland.org/page-1750761

4 28 March
The **STC Philadelphia Metro Chapter** will hold its annual Mid-Atlantic TechComm Conference at the Giant Conference Center in Willow Grove, PA. For more information, visit:
www.stcpmc.org/conference

5 16-19 April
The **Association of Independent Information Professionals** will hold its annual conference in Irvine, CA. For more information, contact:
AIIP
+1 (225) 408-4400
office@aiip.org
www.aiip.org/Conference

6 24–29 April
The **International Society for Performance Improvement (ISPI)** will hold its Performance Improvement Conference at the Hyatt Regency in San Antonio, TX. For more information, contact:
ISPI
+1 (301) 587-8570
conference@ispi.org
www.ispi.org/AC2015

7 30 April–1 May
The **American Society for Indexing (ASI)** will be holding its annual conference in Seattle, WA. For more information, contact:
ASI
conference@asindexing.org
www.asindexing.org/conference-2015/

8 21–24 June
The **Society for Technical Communication** hosts the Technical Communication Summit in Columbus, OH. For more information, contact:
STC
+1 (703) 522-4114
http://summit.stc.org

* STC-related event

A Decade With the BossTunes

BY STEVEN JONG | *Associate Fellow*

"WEIRD AL" YANKOVIC, whose "Mandatory Fun" was the first comedy album in 50 years to top the Billboard charts, brought back the comic song parody. But if you've attended the STC Summit Open Jam, or the Boston (now New England) Chapter publications competition banquet or end-of-year meeting in the last 10 years, you've seen STC's own song parodists, the BossTunes. They lament the struggle with technology, coworkers, and schedules, in musical styles from folk to Broadway and jazz to opera.

The BossTunes in Dallas, 2003

The Birth of the 'Tunes

The group began in 2002 when Taryn Light, then incoming president of the Boston Chapter, attended the inaugural Open Jam in Nashville, Tennessee, as part of the 49th annual conference. Taryn, who had sung in Europe with an American choir and participated in local church and community chorus shows, thought, "We can do this!"

Back home, Taryn recruited outgoing chapter president Hans Fenstermacher, and Val Rushanan, both colleagues at Hans's translation agency. Hans, an accomplished keyboardist, was the son of an opera singer, and sang small roles himself in three productions of the Deutsche Oper Berlin. Val, who played multiple instruments, quickly became the group's music director, arranger, and choreographer. She articulated the BossTunes' performance goal: "from the sublime to the ridiculous *at the same time*."

The trio invited Anna Pratt, who had sung with Taryn in Europe, and myself to join them. Anna was a natural, and I was a community chorus veteran. To boost the group's musicianship, we recruited Ed Marshall, a semipro bass player with area orchestras and big bands.

When Hans left Boston for Washington, DC in 2008, we inveigled Fred Wersan to join the group. Fred brought a welcome comic sensibility, plus a banjo, concertina, and fiddle.

Gigs and Gags

The name BossTunes combined the ideas of music, place, and leadership. (Five members have served on the chapter's council—three as president—and four eventually became Associate Fellows.) The group debuted at the 2003 Open Jam at the 50th annual conference in Dallas. Val remembered the parody of "R-E-S-P-E-C-T" was "so successful that people were dancing, cheering, and even bowing to me!"

For the 51st Summit (in Baltimore, 2004), I performed Caruso's signature aria "Vesti la giubba." I produced an outrageous "soundex" translation about a bad tech-writing contract. The BossTunes showed up in gowns and tuxedos, and I launched into a full-throated, red-faced operatic solo while the ludicrous "translation" was projected behind me to an audience that roared with surprise and laughter.

For Boston (now New England) Chapter performances, the BossTunes teased the then-current president. In 2007, for example, they parodied the Everly Brothers' "All I Have To Do Is Dream" and Silly String-ed Mike Ball, who never saw it coming. Yet afterward he graciously said, "You were huge last night. People just raved to me, as though I had anything to do with it—other than being the foil. I particularly appreciated the funny, fresh, and highly relevant material."

Although the staple of the BossTunes' songbook has been original song parodies, some were performances of comic songs, such as Hans's bravura keyboard and vocal performance of Tom Lehrer's witty "Lobachevsky" (Seattle, 2005). Others featured parody lyrics and a humorous setting, but straight-out performances, such as "Nessun Dorma" (Minneapolis, 2007). "Peel Me A Grape" (Boston Chapter publications awards banquet, 2008) was a jazz song sung by Val with the original lyrics, but set in a vignette of a put-upon technical writer turning the tables and taking charge. And some performances were serious songs sung sincerely, such as Val's wistful "Memories Of You" (Seattle, 2005).

The BossTunes have managed thematic shows too: a luau-themed chapter end-of-year performance in 2011, and for STC (and the Weavers') 60th anniversary in 2013, a folksong performance.

The Next Ten Years

By now the BossTunes are something of an institution. "Every year," Fred says, "when the chapter asks us to do some entertainment, we look at each other and we say, 'Why do they keep asking us?' And then we look at ourselves and say, 'Why do we keep doing this?'" But we have numbers in the bank for future performances.

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